

June 8, 2009



Dear Chairman Copps:

Thank you for your leadership in kicking off the Commission's inquiry into how best to craft a National Broadband Plan for the country. The challenge of producing a comprehensive, thoughtful and achievable plan is daunting. But I agree with you that, working together, the public and private sectors can measurably "move the needle" on broadband deployment and adoption, to the nation's benefit.

As you know, Cox Communications has been a leading provider of quality high-speed Internet access to residential and business customers for more than a decade. We've also been pioneers in the provision of competitive phone services (both circuit- and packet-switched) over our upgraded cable infrastructure. And we're currently in the process of adding wireless capability to our suite of wired service offerings, an exciting development for us and for our customers.

Our experience has taught us a lot about crafting a broadband vision and managing towards it. We know what it takes to build and maintain broadband networks and how to sell broadband services to all kinds of consumers. As part of our longstanding commitment to our communities, we've also been involved in a variety of programs aimed at helping to close the digital divide, often partnering with other concerned stakeholders to implement creative solutions to this critical problem.

I know it will take the Commission time to evaluate all of the evidence, arguments and policy recommendations that will be submitted today in response to the Notice of Inquiry. But I think that we as a country can keep pushing forward with broadband now, even while the comprehensive National Broadband Plan is being drafted and vetted with its many stakeholders.

To that end, I am attaching a short paper that describes an achievable vision for enhancing and expanding broadband service in this country over the next 1-3 years. The recommendations in the paper have been shaped by Cox's "in the trenches" experience as a leading provider of broadband services and as a committed partner with organizations focused on helping kids and families thrive in the digital age. They reflect our best thinking about what kinds of targeted, achievable objectives the Commission can articulate and manage toward that will improve the broadband experience for American consumers by making broadband more ubiquitous, faster, better and safer.

Briefly stated, our recommendations include:

- **Improving Access to Broadband** by cutting the number of unserved American homes in half by 2012; enhancing broadband access for at-risk, low income students and their families by piloting

10 projects in 2010 and using that experience to launch a national program by 2012; and expanding broadband access to all K-12 school classrooms by 2012.

- **Improving Broadband Speeds** by establishing a national speed index by 2010 that reliably measures the average American broadband speed and by doubling the speed index average by 2012.
- **Improving Broadband Usefulness** by having the Commission serve as an effective information clearinghouse for noteworthy broadband adoption efforts by 2010; by identifying government “anchor tenants” and designing a series of pilot programs with those agencies to enhance the usefulness of broadband across a variety of sectors including healthcare, education, transportation, energy management, business creation, and public safety by 2011; and by establishing a series of benchmarks across these sectors by 2011 to better track the effectiveness of government initiatives in promoting broadband usefulness.
- **Improving Consumer Protection and Broadband Safety** by challenging industry to establish meaningful and transparent self-regulatory principles or best practices for broadband data security, privacy and online safety by 2010.

I know there is much work to be done to fully realize the transformative power of broadband for the benefit of the American public. By setting out near-term objectives and managing toward them, Cox believes the Commission can start to prioritize the federal government’s activities, leverage existing undertakings to maximum effect and help position the country for broadband success.

I hope that you will find these ideas useful, and I look forward to talking with you and your fellow Commissioners in more detail both about the recommendations and the public policies and programs that will be needed to realize them.

Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick Esser', with a long horizontal line extending to the right.

Patrick Esser

Improving the U.S. Broadband Experience:

How to Give More Americans Faster, Better and Safer Broadband by 2012



Cox Communications, Inc.

Improving the U.S. Broadband Experience: How to Give More Americans Faster, Better and Safer Broadband by 2012

Broadband is a great American success story. By the end of this year, over 90% of U.S. households will have access to at least one broadband service option and well over a majority – approximately 63% – are expected to subscribe.¹ This still developing marketplace has dramatically revolutionized the communications landscape, providing immeasurable benefits for millions of American consumers and businesses.

But there's work yet to be done to address those homes and businesses that don't today enjoy the full benefits of the broadband experience. To address this challenge, Congress has given the FCC a daunting but critical task: produce a National Broadband Plan by February 2010. As a result, the FCC has prudently put an important stake in the ground, defining the end-game for this undertaking:

Our goal must be for every American citizen and every American business to have access to robust broadband services. Our goal must be for the United States to be a model for the world in creating a partnership between government and industry to ensure that all citizens have access to broadband.²

Significant time, energy and thoughtful analysis will be required in the months ahead to craft a comprehensive plan. While the long-range planning process ensues, there are a number of strategic, concrete objectives the Commission can articulate now that will lead to achievable, measurable results over the next three years. Pursuing these near-term objectives today, while simultaneously planning for tomorrow, will also help shape the evolution of the nation's broadband future.

This paper – borne out of nearly 13 years of hands-on experience in the broadband marketplace – outlines the thinking of Cox Communications, one of the nation's largest broadband providers. It contains specific recommendations and targeted goals that can be achieved by the end of 2012³ to measurably increase the availability of faster, better and safer broadband for Americans.

About Cox. Cox Communications is one of the country's leading providers of broadband services, delivering award-winning high-speed Internet service to more than 4 million residential and commercial customers in 18 states across the country. Since 1996, Cox has invested more than \$16 billion in its state-of-the-art broadband network. Cox High Speed Internet is available to virtually all of the 9.4 million homes its networks pass, in rural and urban communities alike. Moreover, Cox is committed to broadband access, not just broadband deployment, for citizens in its communities, having partnered successfully with non-profit organizations to help bridge the digital divide and enable kids and families to thrive in the digital age.

Cox's track record of broadband innovation is reflected in two other areas. Cox Business provides broadband and related communications services to commercial enterprises throughout our service footprints. Our commercial customer base ranges from large businesses like hospital campuses and military bases to mom-and-pop start-ups. And, in order to provide broadband on the go, Cox will soon be launching a residential mobile wireless service that will be integrated with our other service offerings.

Summary of Recommendations. Improving broadband in this country will require a multi-pronged approach, addressing both sides of the broadband equation: deployment and adoption. Broadband deployment involves the supply side of the calculus: Currently, some American households and businesses lack access to even one viable broadband option. Broadband adoption addresses the demand side: Although most Americans have access to broadband, not all of them are signing up for it, for a variety of reasons.

Cox believes that the FCC can take the first steps toward successfully solving both sides of this complex equation by developing effective public-private partnerships that commit – together – to follow a detailed roadmap focused on a clear vision for the future. It will of course take time to settle on the precise contours of that map. In the meantime, the Commission can establish achievable targets today for broadband deployment and adoption that will produce measurable benefits for American consumers and businesses over a three-year horizon. We therefore encourage the Commission, in close consultation with industry, private sector organizations and other government agencies, to establish the following objectives as it develops the country's longer-term broadband goals:

1. Improve Access to Broadband

- Cut the number of unserved American homes in half by 2012.
- Enhance broadband access by piloting 10 broadband adoption projects for at-risk, low-income students and their families in 2010 and use that experience to launch a national program by 2012.
- Expand full broadband access to all K-12 school classrooms by 2012.

2. Improve Broadband Speeds

- Establish a national speed index by 2010 that reliably measures the average American broadband speed.
- Double the speed index average by 2012.

3. Improve Broadband Usefulness

- By 2010, establish the Commission as a national think tank and information clearinghouse for noteworthy broadband adoption efforts and launch a comprehensive website to contain this data.
- By 2011, identify government “anchor tenants” and design a series of pilot programs with those agencies to enhance the usefulness of broadband across a variety of sectors including healthcare, education, transportation, energy management, business creation, and public safety.
- By 2011, establish a series of benchmarks across these sectors to better track the effectiveness of government initiatives in promoting broadband usefulness.

4. Improve Consumer Protection and Broadband Safety

- Challenge industry to establish meaningful and transparent self-regulatory principles or best practices for broadband data security, privacy, and online safety by 2010.

1. Improve Access to Broadband

One of the most pressing broadband challenges the country faces is ensuring that all Americans, even those living in remote locations, have access to at least one broadband option. It will take a concerted effort by government and industry to increase the availability of broadband in these pockets of unserved communities. But with careful planning and judicious use of public and private sector funds and other financial incentives, Cox believes that the number of unserved households can be cut in half by the end of 2012.

Improving the broadband choices available to underserved populations is also a complex, but critical, undertaking. In Cox's experience, an effective way of bringing broadband to several underserved segments of our society is to focus on low-income households with school-age children. Coupling this approach with a commitment to bringing broadband's benefits fully into our nation's classrooms will help ensure that all children can enjoy the advantages of the digital age. Cox accordingly recommends that the Commission establish two additional broadband access targets to be met by 2012: (1) launching a national program to provide broadband connectivity to low-income households with school-age children; and (2) ensuring the availability of robust broadband interactivity in all K-12 classrooms in the country.

Cut the number of unserved American homes in half by 2012.

Extending broadband availability to homes where it currently does not exist should be government's top priority. Industry experts report that, by the end of last year, at least 92% of American households could purchase broadband service.⁴ But although these figures demonstrate a remarkable deployment of broadband network infrastructure over a relatively short period of time, there are still an estimated 9-10 million households that lack access to any broadband service.⁵

The first step toward closing this gap is to determine with reasonable precision where broadband is, and is not, available. Efforts already are well underway to compile the up-to-date information about broadband availability that the country must have to move forward: the National Telecommunications and Information Administration has been tasked with developing a nationwide broadband map by February 2011; mapping efforts are underway or already have been completed in many states; and data collected directly by the FCC from broadband service providers enables the Commission to immediately discern the availability of wired and wireless broadband services and speeds in every census tract in America. What is now needed is for the Commission to set an aggressive deadline for completing these mapping and data analysis efforts so that the next step of bringing broadband to unserved households can be undertaken in a coordinated and informed fashion.

Once unserved areas are identified, the Commission and other government agencies should encourage public/private partnerships that will result in sustainable broadband network expansion in these markets. In Cox's experience, areas remain unserved primarily because it is difficult economically to build and maintain broadband networks in such remote locations – not because providers simply haven't yet gotten around to serving them. But by making available federal grant dollars and tax incentives focused squarely on unserved areas, and by imposing rigorous financial discipline to ensure a return on taxpayer investment, private industry will invest to help government achieve the important goal of bringing broadband to those areas where none exists.

If the government gets these two things right – making significant progress on broadband mapping and establishing appropriate financial incentives to support sustainable broadband deployment – there is no reason that the gap of 9-10 million unserved households can't be closed to 4-5 million households by the end of 2012. Building broadband infrastructure in more rural locations will not be a gating factor, particularly if government also is diligent about removing potential obstacles to deployment such as unreasonable permitting requirements.

Importantly, the country will need to define the kind of broadband that can be made available to rural communities over the near-term. While satellite communications provide important connections to rural America, particularly in times of emergency, Cox recommends that the government focus in the first instance on ensuring that remote locations receive terrestrial broadband service at least as good as today's DSL (roughly 3 Mbps downstream and 768 kbps upstream). These speeds can readily be provided by a variety of technologies, including wireless, meaning that public-private partnerships will have a range of choices for increasing broadband access. Planning for better speeds and functionality makes great sense as a longer-range goal. But we should not let the perfect be the enemy of the good – getting unserved households connected to broadband quickly is simply too pressing an immediate goal.

Enhance broadband access to at-risk, low-income students and their families.

The vast majority of American homes can connect to the broadband services of at least one, and often more than one, provider. However, some 38% of U.S. households have yet to join the broadband revolution.⁶ One obstacle can be price – affording broadband can be a challenge for many low-income families. But for others the barrier to broadband is not the monthly subscription fee, but rather lies with the cost of computer equipment, the difficulty of maintaining it and a lack of understanding, or even fear, of how to use it.

Reaching all populations underserved by broadband is a worthy but difficult goal to achieve in the near-term due to the vast size and scope of the challenge. The Commission could, however, initiate meaningful change by launching more narrowly-defined pilot programs that target at-risk, low-income students and their families in 10 communities across the country by the end of 2010. Focusing on low-income households would enable the Commission to reach one of the most underserved segments today: Research shows that non-Internet users are more than twice as likely as online users to live in low-income households.⁷ Targeting low-income households also would enable the Commission to reach other low-adoption demographics, such as African-Americans and Hispanics.⁸ And, by focusing on low-income households with children, the Commission could leverage the many efforts of our nation's schools to equip today's students with the digital skills they require. Finally, developing pilot programs in 10 separate communities across the country would allow the Commission to experiment to see what works, and what does not, before scaling the program nationwide by the end of 2012.

Through its own experiences, Cox has learned that, to be successful, a pilot program bringing broadband to low-income households with school-aged children needs three primary partners: one partner to determine participant eligibility; a second partner to provide the computer hardware, training and maintenance support; and a third partner to provide broadband network connections and services uniquely suited to educational purposes, including server-based parental controls, firewalls, virus protections, and storage options.⁹ An excellent example of a program that has brought together the right stakeholders is "Computers for Families" in Santa Barbara, California. In this program, the Santa Barbara County Education Office identifies the children and families who will participate through the federal school lunch program.¹⁰ The school district provides the computers (donated by local businesses and

refurbished by students as part of their vocational education) and requires both the eligible students and their families to participate in two training sessions. Cox then provides high-speed Internet service at the student's home, which includes an important suite of features and functions such as parental controls, firewalls, and virus protection. The program has been highly effective, benefiting more than 3,000 students and their families since its inception in 2002.

To launch a series of similar pilot programs in other communities around the country, the Commission should encourage innovative partnerships between school districts, computer and equipment manufacturers, training and outreach organizations (like One Economy, Inc., which trains young people to teach others to use computers through its Digital Connectors program), and broadband service providers. A number of methods could be used to identify eligible students – not only those who participate in the school lunch program, but those who attend a school receiving funding from the E-Rate program or those whose families qualify to receive Lifeline telephone service. And although Santa Barbara's Computers for Families program focuses on 4th to 6th graders, with the right partners in place, similar programs could target younger or older students, depending on the community's needs.

Lastly, any pilot program should empower the families who participate to make their own choices about services and providers. The government should not limit the speed of service that a participating family can obtain, and the family should be able to choose the provider that best meets its needs. To allow a model such as the "Computers for Families" to scale up to a potentially national program, the Commission should design a subsidy mechanism, such as a broadband voucher for low-income families. Subsidizing consumers, rather than providers, would ensure that the customer is in control of the broadband equipment and selects the provider and the tier of service that best meet the needs of the child and the family. It would also ensure that families who have sacrificed or stretched their limited resources to afford broadband service are not penalized by a program that declares current customers ineligible.

Enhance broadband access for every American classroom.

American students compete fiercely on a global playing field and, to succeed in life, must be proficient with the digital technology tools of the 21st century. And while our country has made great progress in wiring our schools, our students' digital education ultimately begins and ends in the classroom.¹¹ A broadband connection in the classroom that is fully exploited by teachers and students alike opens a virtual window to the world and supports the interactive learning and knowledge sharing which are critical for the innovative spirit and future success of our nation. As President Obama recently stated, America needs to promote "digital literacy from our boardrooms to our classrooms . . . [I]t's not enough for our children and students to master today's technologies . . . we need them to pioneer the technologies that will allow us to work effectively through these new media and allow us to prosper in the future."¹²

The U.S. already has made great progress getting schools and classrooms wired with Internet connectivity. What we need now is to build on that success and bring every classroom fully into the digital age. In particular, broadband service in the classroom will not be fully utilized without the computers, routers, smart boards, software, and teacher training needed to maximize its potential educational benefit. Accordingly, the Commission should take stock of our progress and develop a strategy for bringing American classrooms' broadband experience to the next level by the end of 2012. A key element of that strategy will be to analyze the existing federal E-rate program and expand it as necessary to support the purchase of more broadband equipment and supportive training.

2. Improve Broadband Speeds

Develop a national broadband “speed index” by 2010 and double the speed index average by 2012.

Speed is one of the defining characteristics of the broadband experience. Fast networks yield countless benefits for Americans by increasing productivity, improving functionality and enhancing utility for the seemingly unlimited number of exciting applications available on the Internet. Today’s consumers already enjoy an array of speed options that appeal to everyone from the occasional e-mailer to the voice-over-IP customer to the bandwidth intensive, real-time video-gamer. But with new applications coming to life daily, Americans will continue to demand faster speeds in the future.

Cox believes that the national dialogue around speed – “how fast is fast enough” – is most productively cast as “how fast are we now and how can we get measurably better”? The National Broadband Plan proceeding offers the Commission a unique opportunity to establish a national broadband “speed index” that would be a benchmark for efforts to double the average speed of America’s broadband connections by the end of 2012.

Establishing a broadband speed index would account for the reality that not all broadband networks are created equal and not all Americans currently enjoy the same broadband speeds. Before the FCC can set a goal for increasing broadband network speeds, it must understand the state of the market. Current average downstream speed estimates range from 2.3 Mbps to 6.4 Mbps and higher.¹³ While there are a number of sources available online for consumers to assess the speed of their broadband connection – which vary widely depending on service-level subscription, technology and provider – no clear standard exists for a nationwide definition of an “average” speed.

It is time for the Commission to step in and develop by 2010 a broadband “speed index,” allowing the country to openly and transparently measure and track broadband speeds. With data from real-time online speed testing, the Commission could better assess the broadband marketplace, establish meaningful benchmarks, and measure the effects of public policies. Collecting data in real-time also will allow for the speed index to be continually updated, which is important as networks rapidly evolve and technology continues to flourish.

Once a speed index is established, the Commission should set the goal of doubling the speed index average by 2012. A clear and achievable broadband speed goal will focus industry and government collaboration on improving the country’s overall broadband experience through faster network connections to the benefit of all Americans, not just those who happen to currently enjoy above-average broadband speeds.

3. Improve Broadband Usefulness

By 2010, establish the Commission as a national think tank and information clearinghouse for noteworthy broadband adoption efforts and launch a comprehensive website to contain this data.

By 2011, identify government “anchor tenants” and design a series of pilot programs with these agencies to enhance the usefulness of broadband across a variety of sectors, including healthcare, education, transportation, energy management, business creation and public safety.

By 2011, establish a series of benchmarks across these sectors to better track the effectiveness of government initiatives in promoting broadband usefulness.

The country's broadband experience will be maximized when all Americans understand the value of broadband. But to understand the value of broadband, consumers must understand the *usefulness* of broadband. One national survey has reported that the biggest stumbling block for using broadband isn't price or lack of availability of service; rather, many non-broadband users simply aren't interested in getting on-line or think it is a “waste of time.”¹⁴ Broadband service providers have every incentive to sell service to more Americans, even the most skeptical among us. But in order to increase broadband penetration for the most disengaged consumers, government will likely have to assume a leadership role in helping to make the Internet compelling for all Americans, no matter where they live and what their interests.

Accelerating broadband adoption begins with the identification, ubiquitous availability and increased utility of applications that offer clear public value in a secure environment. We know that such driver applications exist – home health monitoring, energy usage programs, and on-line educational improvement opportunities are but a few of the obvious examples. Consumers could use them now. But as Cox has discovered, consumers are far less likely to do so if the service organizations with whom they interact (e.g., health care providers or educational institutions) can't or don't support the applications or otherwise make it simple for average Americans to engage in a meaningful way.¹⁵

Industry should and will continue to work to develop business models for the sustained commercial viability of these driver applications. But one of the largest participants in markets affecting American consumers and businesses is, of course, the government. When a government agency adopts a uniform approach to supporting web-based applications, that action tends to pave the way for smaller companies to follow suit and for consumers to get on board. As a result, all governments (federal, state, local and tribal) have the opportunity and a responsibility to help their citizens recognize the benefits of consumer friendly web-based applications through government services, public education efforts and other government-funded initiatives. Indeed, many such initiatives are already underway at various levels of government.¹⁶

Accordingly, as part of the Administration-wide efforts to integrate broadband into all aspects of government operations, the Commission should take a leadership role in helping to catalog and coordinate the services and applications that increase the usefulness of broadband. Specifically, the Commission should

- Serve as a national think tank and information clearinghouse for noteworthy broadband adoption efforts and establish a comprehensive website by 2010 to contain this data.¹⁷
 - Identify success stories.
 - Gather performance data, evaluate and measure the success of existing programs and commission outside assessments.
- By 2011, identify and work with government “anchor tenants” to develop coordinated, inter-agency pilot programs to drive broadband usefulness in their respective subject matter areas, including healthcare, education, transportation, energy management, business creation and public safety.
- By 2011, establish a series of benchmarks across these sectors to better track the effectiveness of government initiatives in promoting broadband usefulness.

Below are a variety of suggested actions the Commission could take toward meeting the goals of improving the utility and usefulness of robust broadband networks by 2012:

- **Enhance healthcare applications.** Close coordination between the Commission and the Department of Health and Human Services, the Department of Veterans Affairs, the Department of Agriculture’s Rural Utilities Service and other agencies is imperative in the digital evolution of public and private healthcare providers. The implementation of electronic health records must be done with consumers squarely in focus. Americans must be empowered with standardized Web-based tools allowing them to manage their healthcare – ending frustration and saving time and money as a result. Rapid development of open standards for health information provides a dual benefit of improving patient health and containing costs. Similarly, services powered by broadband, such as remote medical monitoring, help patients, healthcare providers, insurance companies and doctors manage care more successfully and efficiently. For example, Cox provides broadband linking two major medical centers in Oklahoma City to eight rural hospitals, allowing doctors to do remote prenatal monitoring at convenient local facilities so expectant mothers can avoid long commutes to urban medical centers.¹⁸ Virtual healthcare applications also provide a highly compelling value proposition for older Americans – a key demographic that often does not see the value of broadband.¹⁹

- **Enhance educational applications in the classroom.** Working with the Department of Education and the states, the Commission should encourage public-private collaboration between industry and educational institutions on broadband adoption efforts. These partnerships should strive to standardize Web interfaces to enhance online teacher training, and should incorporate digital literacy into curriculum across all ages and disciplines. Increasing the availability of computers and compelling content in educational settings will further drive demand for broadband connectivity. For example, working in partnership with Cox, the Lemon Grove School District in San Diego offers the LemonLink program that provides content and information for parents and students online. Students are also equipped with an e-Pad and broadband access at school and at home. Round-the-clock access to rich educational resources has yielded positive results, with students showing significant gains in math and reading scores, exceeding expectations by up to 35 percent.²⁰

- **Enhance intelligent transportation and mobile workforce applications.** Americans are continually on the go and spend an extraordinary amount of time commuting. A number of federal agencies are devoting significant resources to developing an intelligent transportation system that will support applications that reduce or eliminate long commutes. The resulting benefits include enhancing productivity while commuting or at home, improving quality of life with shorter commute times, creating a “greener” environment, and reducing transportation costs. Informing commuters about upcoming areas of congestion or allowing for secure log in from a laptop on a train are among the enhancements broadband can provide the mobile workforce, adding value to Americans’ everyday lives and increasing productivity.
- **Enhance energy management applications.** Smart grid and other energy management initiatives can leverage existing consumer broadband infrastructure with strategic investments in connecting the energy grid and developing communications applications to allow for improved management of the distribution network. Working with the Department of Energy, the Federal Energy Regulatory Commission, and state partners, the FCC should help guide these national priorities with an eye on consumer applications. Consumers will further embrace broadband when it allows them to efficiently and cost-effectively manage their energy consumption. For example, consumers should be able to view energy usage from a desktop anywhere in the world and adjust thermostats remotely to lower energy consumption. Additionally, broadband providers, whose infrastructure is often collocated with electric transmission and distribution networks, should partner with private and municipally-owned utilities to enable better management of the electric grid and facilitate recovery during outages.
- **Enhance business opportunities, and create and save jobs through virtual business applications.** Working with government at the national, state, local and tribal level, the FCC can help identify “best practices” for applications that can generate critical economic growth by opening markets and lowering barriers to entry, especially for small businesses. The Small Business Administration and Department of Commerce could be particularly compelling partners in these efforts. Positioning computers and broadband connections as a powerful force for employment and entrepreneurship will encourage even more Americans to make the investment to get connected.
- **Enhance the effectiveness of public safety agencies and public awareness during times of emergency.** In a 21st century society, it is critical that our nation’s public safety community be a key participant in any broadband discussion. The recent swine flu outbreak highlights the important role of public outreach as half of all Americans have turned to the Internet for information on the virus and the Center for Disease Control and Prevention website has been the top site visited according to one poll.²¹ The Commission should work with the Department of Homeland Security, NTIA and the other members of the National Communications Systems to ensure that all public safety agencies keep consumers in mind as they develop broadband-based programs and applications to respond to potential crisis events such as pandemics and biohazard situations.

4. Improve Consumer Protection and Broadband Safety

Challenge industry to establish meaningful and transparent self-regulatory principles or best practices for data security, privacy and online safety by 2010.

As Cox has made broadband available to consumers throughout its service footprint, it has seen firsthand the obstacle to broadband usage that can be posed by the potential risks that exist online to personal data, privacy, and basic safety. Left unchecked, fear of identity theft and fraud, questionable marketing tactics, and online sexual predators can present a significant psychological hurdle to Internet usage. But these obstacles are also the very types of serious risks that can be mitigated through effective consumer education and industry best practices.

When Cox explored how to improve its program for protecting children from inappropriate video programming, for instance, it learned from parents that they were far more concerned about how to safeguard their children in an ever-evolving online environment. Similarly, a 2009 national survey reported that despite strong consumer interest (42%) in establishing electronic personal health records, nearly 40% of consumers remain concerned about the security and privacy of their medical information.²² To maximize adoption of broadband in general, and of key broadband applications like the use of electronic health records in particular, consumers must have peace of mind about the safety of their broadband experience and the integrity of their personal data.

Industry has been attentive to these concerns, and numerous efforts have been underway for some time to gather interested stakeholders and develop reasonable and effective best practices. Through NCTA's Point Smart Click Safe program, for example, the cable industry has worked extensively with a range of other stakeholders to educate parents, caregivers and children about potential online risks and to provide extensive controls and tools to mitigate these risks. Cox, in particular, has been a leader in this area, not only because it makes solid business sense but also because effectively dealing with online safety has been a pillar of our social responsibility efforts. In 2004, Cox launched *Take Charge! Smart Choices for Your Cox Digital Home*, which combines national research, practical tools, hands-on training and education, and significant national promotion to educate families and kids about the risks posed by unsafe online behavior. And Cox's Take Charge! program has continued to grow its product portfolio. The company's latest research highlights mobile device usage by teens and the www.cox.com/takecharge website has been expanded to include wireless online safety tips for youth and parents.

Similar industry efforts have flourished to address consumers' concerns about the use and safety of information collected about their Web surfing activities by online advertisers. In December 2008, for example, the Network Advertising Initiative announced, after a year-long comprehensive effort, that it had unanimously adopted an enhanced Self-Regulatory Code of Conduct to address issues surrounding the online collection and use of consumer data for marketing and advertising purposes. These member-binding principles address issues such as transparency, notice, protection levels keyed to sensitivity of the data, and a host of other related issues. The major advertising associations, including the American Association of Advertising Agencies, the Association of National Advertisers, the Direct Marketing Association, and the Interactive Advertising Bureau, also have formed a task force to develop guidelines for online behavioral advertising. This comprehensive and multi-faceted effort will include input from policy-makers, businesses, and consumers, as well as the Council of Better Business Bureaus, a leader on issues of marketplace trust. The end-goal is to adopt effective industry-led oversight, coupled with adequate enforcement, in a way that ensures that new, innovative and trusted online advertising applications continue to develop.

4. Improve Consumer Protection and Broadband Safety (continued)

To date, government has been actively involved in overseeing these and related industry efforts aimed at improving consumers' safety, privacy and security when using broadband services. What is needed now is a timeline for industry to complete its efforts to develop a comprehensive and effective self-regulatory approach. Accordingly, the government should challenge industry to build upon its already strong foundation in this area to finalize best practices by the end of 2010.

The National Broadband Plan Will Require Leadership, Initiative and Collaboration.

By many measures, the deployment and adoption of broadband over the past 15 years has been a great U.S. technology success story. But Congress has rightly recognized that there still is much work to be done before all Americans truly are able to enjoy the full benefits of the broadband experience. A National Broadband Plan provides an important platform for government, working closely with the private sector, to take a leadership role on broadband and to develop the policies that will help make broadband faster, better and safer for more Americans.

To accomplish these important goals, the Commission also must look beyond its traditional jurisdiction and tap into stakeholders across government and beyond who can truly help enhance the broadband experience. The Commission cannot articulate and execute a broadband plan alone; effective and comprehensive collaboration will be required. Equally as important, the Commission must approach this task with a business eye – it must set goals and benchmarks; work with those who can help meet these objectives; and honestly assess successes and failures as goals are accomplished or missed.

Cox welcomes the opportunity to work closely with the Commission on developing the National Broadband Plan and on helping to execute this ground-breaking effort.

Endnotes

¹ “Broadband Sign-ups To Fall By 12 Percent in 2009, Forecast Shows,” Press Release, Pike & Fischer’s Broadband Advisory Services, Jan, 6, 2009, *at* <http://finance.yahoo.com/news/Broadband-SignUps-to-Fall-by-iw-13978149.html> (“P&F Press Release”).

² *A National Broadband Plan for Our Future*, Notice of Inquiry, Federal Communications Commission (released April 9, 2009) at ¶ 5 (“Notice”).

³ Unless otherwise stated, all year references are to year end.

⁴ See National Telecommunications & Cable Association, Industry Statistics, Availability, *at* <http://www.ncta.com/StatsGroup/Availability.aspx>.

⁵ Jon M. Peha, *Bringing Broadband to Unserved Communities* (The Hamilton Project, The Brookings Institution), July 2008, at 11. Peha deliberately counts only DSL and cable modem coverage in his rough estimate, noting that wireless data rates may not be comparable; accordingly, the number of unserved households may actually be smaller.

⁶ See P&F Press Release.

⁷ See John B. Horrigan, *Home Broadband Adoption 2008* (Pew Internet and American Life Project), July 2008, at 2 (“Horrigan”). As of April 2008, only 25% of low-income Americans (those with annual household incomes of \$20,000 or less) reported having broadband in the home.

⁸ The National Center for Children in Poverty indicates that 34% of American children living in families with incomes below \$22,500 are African-American and 29% are Hispanic.

⁹ Cox has found that a lack of equipment and the difficulty of maintaining a home computing system are significant impediments to these students and their families. One way of addressing these obstacles is to have the program provide a turnkey broadband service that consists of a broadband connection, a terminal and use of the broadband service provider’s servers for storage as well as for the software programs needed to provide protection against viruses and spam.

¹⁰ According to the U.S. Department of Agriculture, more than 30 million children from low-income households in 101,000 public and non-profit private schools benefited daily from the National School Lunch program in 2007. See U.S. Dept. of Agriculture, Food and Nutrition Service, National School Lunch Program Factsheet, *at* <http://www.fns.usda.gov/cnd/lunch/AboutLunch/NSLPFactSheet.pdf>.

¹¹ Organization for Economic Cooperation and Development, Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, *Broadband Growth and Policies in OECD Countries*, June 2008, at 86 (indicating that the U.S. leads OECD countries in broadband deployment to schools with 97% of its schools covered by 2005).

¹² See Remarks by the President on Securing Our Nation’s Cyber Infrastructure (transcript), delivered at the East Room of the White House, May 29, 2009, *at* http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-Securing-Our-Nations-Cyber-Infrastructure/.

¹³ See Communications Workers of America, “Speed Matters: A Report on Internet Speeds in All 50 States,” August 2008, *at* http://www.speedmatters.org/page/-/SPEED-MATTERS/Publications/cwa_report_on_internet_speeds_2008.pdf?nocdn=1 and <http://www.speedtest.net/summary.php>, a device by Ookla Net Metrics, summarizing the viewer’s broadband speeds.

¹⁴ See Horrigan at iii.

¹⁵ Indeed, recent surveys have shown that, while consumers are interested in using web-based applications for health care records or remote health monitoring, these services are not yet readily available. See Deloitte Center for Health Solutions, 2009 Survey of Health Care Consumers: Key Findings, Strategic Implications, *at* <http://www.deloitte.com/us/2009consumersurvey>.

¹⁶ See, e.g., Obama-Biden Technology Platform *at* http://change.gov/agenda/technology_agenda/.

¹⁷ See Notice at ¶¶ 56-67. The Commission reiterated this idea in its report to Congress on a rural broadband strategy. See also *Rural Broadband Report* at ¶ 109.

¹⁸ The FCC’s *Rural Broadband Report* points to several similar projects developed with the assistance of RUS grants and loans. See *Rural Broadband Report* at ¶¶ 50-53.

¹⁹ Horrigan at 12-13.

²⁰ Cox Communications, Inc. Press Release, “Lemon Grove School District in San Diego County Scores Vast Improvements in Academic Performance Index Test Rankings,” June 18, 2002, *at* <http://phx.corporate-ir.net/phoenix.zhtml?c=76341&p=irol-newsArticle&t=Regular&id=307079&>. See also Linda A. Jackson, *et al.*, “Does Home Internet Use Influence the Academic Performance of Low-Income Children?” *Developmental Psychology*, 2006, Vol. 42, No. 3, *available at* <http://www.apa.org/releases/dev423-jackson.pdf> (discussing a study performed in 2000-2002 tracking the academic performance of low-income children using the Internet at home).

²¹ See Jodie T. Allen, Senior Editor, Pew Research Center, “Search: ‘Swine Flu’ – Where Americans Are Turning for Flu Facts,” May 7, 2009, *at* <http://pewresearch.org/pubs/1217/internet-swine-flu-source-top-websites-search>.

²² See Deloitte Center for Health Solutions, 2009 Survey of Health Care Consumers: Key Findings, Strategic Implications, *at* <http://www.deloitte.com/us/2009consumersurvey>.